

Antique herbals as contemporary references

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An ongoing effort for the integrated study of the information provided in the text and images of a 7th century manuscript has provided so far intriguing results on the delineation of the described herbal material. Identification of the Umbelliferae (Apiaceae) plants utilized as drugs in the most prominent of the antique herbals, Dioscorides's *De Materia Medica*, is just the initial step for the retrieval and consequent exploitation of the knowledge hidden therein. Here is presented for first time the full approach of the proposed methodology for two selected plants, *Opopanax chironium* and *Mandragora officinarum* including the following consequents tasks; the plant identification, the definition of the plant part utilized in the remedy, the description of plant collection and post-harvest management, and finally the delineation of the remedy preparation techniques, metrics and conditions. The results of this data recombination conform a documented complete description of the natural product proposed by the manuscript as herbal remedy. Then, this detailed description is discussed against the current advances in the phytochemistry, ethnobotany and ethnopharmacology, and the bioactivity indications of the selected *taxa*, aiming to indicate potential knowledge gaps and future perspectives on each relevant discipline. Finally, is explored the value and potentials of the manuscript as documentation material for original indication in the context of the Nagoya Protocol and the European Union's legislative framework.

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Effects of naltrexone on cytokine levels of rats with estrogen deficit and chronic alcohol intake

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It has been shown that chronic alcohol consumption decreases NK cell cytolytic activity and the production of various cytokines in rats. Furthermore, the experimental results demonstrate that naltrexone, an opiate receptor antagonist, may prevent the suppressive effect of alcohol on immune functions. Recent data suggest that estrogen deficit in female rats can exacerbate the adverse effects of alcohol on immune functions. The present study investigated the effects of alcohol and naltrexone on immune functions of ovariectomized (OVX) rats. OVX rats were pair-fed an isocaloric liquid diet or fed an ethanol-containing liquid diet for a period of 4 weeks. These rats were additionally treated after a week with naltrexone (2.5 mg/kg, i.p.) for 3 weeks. Serum levels of interleukin (IL-6) and interferon-gamma (IFN-gamma) were determined using enzyme-linked immunosorbent assay (ELISA). Our results showed that chronic ethanol consumption significantly decreased IFN-gamma levels. Interestingly, the IL-6 levels of the experimental animals treated with alcohol were also decreased. The administration of naltrexone increased serum levels of IL-6 and IFN-gamma. These results suggested that naltrexone treatment modulated the effects of alcohol on cytokine production in OVX rats. Further studies are needed to clarify the role of naltrexone on immune functions in patients with estrogen deficit and chronic alcohol intake.

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